Q18. WHAT IS THE DIFFERENCE BETWEEN A MASS MARKET ARCHITECTURE AND AN ENTERPRISE ARCHITECTURE?

A18. A mass market architecture would be used by CLECs serving residential and very small business customers that do not require the high bandwidth associated with a DS-1 facility. Instead of receiving service via a DS-1, a mass market customer will be served by one or more 2 wire (2W) analog loop circuits required to provision the service, and would more likely to business with a service provider on a month to month basis. Enterprise customers on the other hand will typically have sufficient lines and or data requirements to make the use of a DS-1 facility economically feasible, and would be more likely to do business with a service provider on a contract basis that could includes term commitments.

Q19. WHAT ARE THE CRITERIA BY WHICH A CUSTOMER WOULD BE EVALUATED TO DETERMINE IF THEY ARE MASS MARKET OR ENTERPRISE.

A19. Residential and very small business customers of 6 lines or less that do not require the bandwidth of a DS-1 would be considered mass market customers. Customers with 7 lines or more or any customer served by a DS-1 facility are considered to be enterprise customers.

[5] TRO Paragraph 459

Q20. IS THE 6 LINE THRESHHOLD THE ONLY DETERMINING FACTOR?

A20. No, as previously stated, the number of lines plus the need for high speed data connectivity could make it economic for a customer with only four lines to be served by an enterprise (DS-1) architecture. In summary both the number of lines and the customer's data requirements must be considered when determining the most economic architecture with which to support a customer.

Q21. HOW DO YOU KNOW THAT THE 6 LINE THRESHHOLD IS THE CORRECT LINE OF DEMARCATION?

A21. Although this is the best number we can derive, the varying needs of customers make it near impossible to establish an absolute point of demarcation. If all things were always equal, then the 6 line demarcation point might be able to be characterized as absolute. There is a large degree of variability introduced by a customer's data needs, as well as the potential for a 7 or 8 line customer to have no data requirements. The possibility exists that an 8 line customer with no data needs could be served via a mass market architecture and a 4 line customer with large data needs could be served by an enterprise architecture. Mr. Doug Dawson will expand upon this discussion area in testimony that profiles his study of the economic cross over point between the enterprise market

and mass market, and how a CLEC would likely determine the type of architecture to deploy for a particular customer.

Q22. DID STAFF USE THE CLEC AND VMD DATA AS PART OF THE MARKET DEFINITION PROCESS?

A22. Yes. From the beginning, Staff used the data in varying degrees of granularity to determine what the markets should be based on, where the CLECs reported they were operating, and how many and what type of customers they were serving.

Q23. HOW DID STAFF BEGIN THE MARKET DEFINITION PROCESS?

A23. Staff evaluated the data using a series of questions starting at a high level and becoming more granular as the evaluation progressed. For example, the first evaluation of the data asked the question "Where are the CLECs deploying collocation equipment, and how large a geographic territory is each serving?" The result of this question indicated that some CLECs were serving only the Washington market, some CLECs were serving only the Baltimore market and others were serving both. Subsequent more granular evaluations yielded significantly more detail. In particular it resulted in precise insights as to how CLECs served their customers and how they utilize different methods to serve the enterprise markets than

they use to serve the mass market. By the time Staff had completed its evaluation of the data, the analysis included questions such as "How many lines does each CLEC serve in each of the wire centers it collocates?; and Does the data provide an indication that the CLECs' operation in Maryland address the enterprise market differently than they address the mass market?"

Q24. WHAT KNOWLEDGE DO YOU HAVE OF THE STATE OF MARYLAND AND THE MARYLAND TELEPHONE NETWORK?

A24. I have lived and traveled around Maryland extensively and have a fair understanding of the demographics and communities of Maryland. I personally have a background in switch and network design, and have focused on the Maryland network as a systems engineer, technical consultant and sales manager during my career with Lucent Technologies.

Q25. WHAT KNOWLEDGE DO YOU HAVE OF THE ILEC AND CLEC NETWORKS DEPLOYED IN MARYLAND?

A25. I have considerable knowledge of the ILEC networks deployed in Maryland. My understanding of the CLEC networks deployed in Maryland was greatly enhanced by Staff's evaluation of the TRO data, and Staff is comfortable that its conclusions and findings relative to the CLEC

networks are supported by the data.

Q26. DID YOU EMPLOY MORE THAN ONE METHOD TO DEFINE THE MARKETS IN MARYLAND?

A26. During the early stages of my study of the TRO (before VMD submitted its testimony), I had several discussions about how and to what level of granularity the relevant geographic markets should be defined. For example I considered the possibility of defining each wire center as a market, defining contiguous communities of interest as a market, or using demographic characteristics and natural geographic boundaries to define the markets. I concluded early on that there were a minimum of two markets in Maryland that consisted of the population centers in the Washington and Baltimore areas. Only with additional study did I conclude that further segmentation of these two markets was unnecessary. In fact, further segmentation into smaller markets could erode the ability of a CLEC to enjoy the scale and scope economies which the FCC requires be considered in any TRO analysis. The decision to define the markets as larger geographic areas was in part influenced by FCC's statement that:

> "states should not define the markets so narrowly that a competitor serving that market alone would not be able to take advantage of the available scale and scope economies from serving a wider market."[6]

[6] TRO Paragraph 495.

Q27. HOW MANY MARKETS DID VMD PROPOSE IN ITS TESTIMONY?

A27. VMD has proposed two markets to be defined as the Washington Metropolitan Statistical Area (MSA) and the Baltimore MSA as defined by the federal Office of Management and Budget. VMD included in its testimony a map of the two markets on which it proposed the markets as inclusive of rate groups A1 and A2 in both the Washington and Baltimore MSA's. VMD did not rebut the FCC presumption of mass market impairment outside of the Washington and Baltimore markets.

Q28. HOW DID THE CLECS PROPOSE TO DEFINE THE MARKETS?

A28. The CLECs offered a variety of proposals, some of which were similar to the VMD MSA proposal, others of which advocated that markets be defined at the wire center level. AT&T does not object to using the VMD MSA approach to defining the markets for this case[7] but reserves the right to propose other relevant market definitions in the future. MCI advocates that each wire center be considered as its own market and that the impairment analysis be performed at the wire center level.

Q29. WHAT IS STAFFS VIEW OF THE MARKETS IN MARYLAND?

[7] Direct testimony of Kirchberger and Nurse page 9 line 17.

A29. Staff agrees in principle with VMD and AT&T that there are at least two relevant geographic markets in Maryland, which consist of the Washington and Baltimore areas. Staff agrees with MCI, however, that the definition of those markets must be defined by the accumulation of the wire centers[8] located within each market to satisfy the FCC's requirement that the markets must be defined at a "granular level."[9] This method of defining the markets enabled Staff to perform its impairment analysis at a granular level and take into consideration the locations of the customers the CLEC's are actually serving. Staff did not perform any impairment analysis on the remainder of Maryland because no party rebuts the FCC's presumption of impairment for those territories.

For purposes of the mass market impairment test, the relevant geographic location must be the wire center within which CLECs have the opportunity to collocate equipment to serve customers. To that end, Staff used a process in which it evaluated the Washington and Baltimore regions and defined each market as the aggregation of specific wire centers. Staff then tested the edges of the resulting geographic territory to determine if specific wire centers truly belonged to the geographic market and to determine if the analysis had missed wire centers that should have been included in the geographic market. The list of specific wire centers Staff proposes is included in Attachment JTH-C and JTH-D, which respectively

[8] A wire center is a geographic area that includes all of the service provider buildings, switching, transport and loop plant to required to serve the needs of its telephone customers.
[9] TRO Paragraph 495

define the Washington and Baltimore markets. Attachment E provides a list of the other wire centers in Maryland which should not be subjected to the mass market circuit switching impairment test in this proceeding. Attachment 2 includes three maps that provide both a state view and individual market view of the Washington and Baltimore markets.

Q30. HOW DOES THE STAFF MARKET DEFINITION PROCESS COMPARE WITH THE APPROACH USED BY VMD AND THE CLECS?

A30. The geographic territory defined by Staff's market definition is quite similar to the geographic territory proposed by other parties. My evaluation of the Baltimore and Washington markets focused on the fringe areas of the markets. It is my belief that the Fallston exchange area, which VMD included in its Baltimore market, should not be included since its customers appear to be served primarily by the Bel Air wire center. The Sykesville (SYVLMDSK), wire center which appears to be included in the VMD MSA proposal should not be included in the Baltimore market because there are no CLECs collocated there. The West River (GLVLMDGL, Galesville) and Olney (OLNYMDOK) wire centers that appear to be included in the VMD MSA proposal should not be included in the Washington market because no CLECs are collocated in those wire centers. It should be noted that these wire centers are located on the fringes of the markets and might be included in the future.

Q31. HAVE YOU IDENTIFIED ALL OF THE WIRE CENTERS THAT EXIST IN MARYLAND?

A31. I relied on the VMD list of wire centers submitted as its response to the Commission's Census Data Request. If other wire centers exist, I have no knowledge of them, but will evaluate and incorporate any additional information that is brought to my attention.

Q32. WHAT CONCLUSIONS DID YOU REACH WITH RESPECT TO THE GEOGRAPHIC MARKETS IN MARYLAND?

A32. There are presently at least two geographic markets in Maryland. They are the Washington and Baltimore markets defined by the aggregation of the specific wire centers listed in Attachment JTH-C and JTH-D.

Q33. WHAT CONSIDERATIONS DID STAFF EVALUATE RELATIVE TO THE REST OF THE STATE?

A33. Staff reviewed the number of collocation sites reported by the CLECs in the non MSA (areas outside the Washington and Baltimore) markets. It also identified the number of resale and UNE-P lines reported by the CLECs in those same areas. For information purposes I have included a

summary of the collocation sites which make up the non MSA markets. as Attachment JTH-E. I have included in these lists an accounting of VMD mass market customer counts and the CLEC customer counts for both resale and UNE-P.

Q34. HOW DOES THE DATA SUPPORT THE CONCLUSIONS REGARDING MARKET DEFINITION?

A34. Staff began its evaluation of the data responses as soon as they were received. The basic approach Staff used to study the data was to sort it into several different views as listed below. I have provided Attachments to this testimony as indicated below, to display the results of the data analysis that led the market definition conclusion.

Attachment JTH-F – CLEC Collocations by Geographic area.

This attachment shows the summary of collocation sites each of the CLECs has installed within each of the defined geographic markets and the non-MSA geographic territory.

Attachment JTH-G – Washington Market Collocations by Wire Center.

This attachment provides a detailed accounting of the wire centers where the CLECs have installed their collocation facilities in the Washington market.

Attachments JTH-H – Baltimore Market Collocations by Wire Center.

This attachment provides a detailed accounting of the wire centers where the CLECs have installed their collocation facilities in the Baltimore market.

Attachment JTH-I – Non MSA Collocations by Wire Center.

This attachment provides a detailed accounting of the wire centers where the CLECs have installed their collocation facilities in the non MSA territory.

Attachment JTH-J – UNE-P Lines by Geographic Area by CLEC.

This attachment provides a summary of CLEC UNE-P lines by CLEC for each of the metropolitan geographic markets and the non MSA geographic territory.

Attachment JTH-K – UNE-P Lines by Wire Center by Market.

This attachment provides a detailed accounting of the UNE-P lines by wire center by market.

Attachment JTH-L – Resold Lines by Geographic Area by CLEC.

This attachment provides a summary of CLEC Resold lines by CLEC for each of the metropolitan geographic markets and the non MSA geographic territory.

Attachment JTH-M – Resold Lines by Wire Center by Market.

This attachment provides a detailed accounting of the Resold lines by wire center by market.

Attachment JTH-N - Total UNE-P lines by CLEC.

This attachment provides a summary of UNE-P lines by company.

Attachment JTH-O – Total Resale Lines by CLEC.

This attachment provides a summary of resold lines by company.

Q35. WHAT DID YOU LEARN ABOUT HOW CLECS ARE SERVING CUSTOMERS?

A35. My interpretation of the data indicates that the facilities based providers are primarily serving customers using an enterprise network architecture. Furthermore, with the exception of the cable providers, there are a de-minimus number ***BEGIN PROPRIETARY ********** working lines) **END PROPRIETARY*** of CLEC mass market customers that are identified as part of the CLEC facilities based network. The ***BEGIN PROPRIETARY*** *** ***END PROPRIETARY*** lines were reported by one CLEC which has deployed ***BEGIN PROPRIETARY*** ****** ***END PROPRIETARY*** working lines. The contrast is even greater when compared to the total of 311,817[10] working lines reported by all of the facilities based CLECs. The data also shows that where CLEC's are serving mass market customers, they serve them primarily by UNE-P and resale.

DEDICATED TRANSPORT OVERVIEW

Q36. WHAT DID STAFF CONCLUDE ABOUT THE STATUS OF DEDICATED TRANSPORT IN MARYLAND.

A36. Faina Kashtelyan performed the impairment analysis for dedicated transport in Maryland. With regard to dedicated transport, Staff concluded that the self provisioning trigger for DS-3 or dark fiber facilities are not satisfied. Similarly, Staff concludes that the wholesale triggers for dark fiber and DS-1/DS-3 facilities are not satisfied. In other words the CLEC's continue to face impairment with regard to dedicated transport.

ENTERPRISE LOOPS OVERVIEW

Q37. WHAT DID STAFF CONCLUDE ABOUT THE STATUS OF ENTERPRISE LOOPS TRANSPORT IN MARYLAND.

A37. At the time of this writing, Staff has not reached a conclusion on the enterprise loops issue. Kevin Mosier will be performing the enterprise loop impairment analysis and Staff will file testimony on the schedule approved by the Commission.

[10] Includes a ***BEGIN PROPRIETARY ******* END PROPRIETARY*** surrogate line count

Q38. THE GRANULAR ANALYSIS REQUIRED BY THE TRO WILL REQUIRE ONGOING FUTURE ANALYSIS OF THESE SAME ISSUES. DO YOU HAVE ANY RECOMMENDATIONS ABOUT HOW TO LOOK AT THESE ISSUES IN THE FUTURE?

A38. Without knowing what additional factors may need to be considered in the future, Staff proposes the following approach to each of the four major elements of the Commission's ongoing TRO obligation.

1. **Market Definition** - Staff has completed its initial definition of geographic markets which will need to be re-evaluated as competition evolves. In order to accomplish the market definition review, the Commission should require the CLECs and VMD to refresh the data provided to the Commission in this proceeding. Since the process of assembling and filing the large amounts of data associated with market definition and mass market switching analysis is quite a large effort, Staff proposes that the review take place annually to the extent that a party petitions the Commission. If no party petitions the Commission for such a review, the Commission could elect to skip an annual review.
2. **Mass Market Circuit Switching** – Much of the data needed to perform the market definition process is also used to evaluate the presence or absence of impairment in the mass market

reported by AT&T in its supplemental response to the Commission census data request.

circuit switching analysis. To that end a review of the mass market switching triggers could be performed each time the Commission performs the market definition review.

3. **Dedicated Transport** – The data required to perform the dedicated transport review is less voluminous than the data require for market definition and mass market circuit switching reviews. Staff proposes that subject to a petition, the dedicated transport analysis could be performed semi-annually. If no party petitions the Commission for a review, the Commission could defer further review of dedicated transport review until such time that a party files a petition for review.
4. **Enterprise Loops** - The data required to perform the enterprise loop review is less voluminous than required for the market definition and mass market circuit switching review. Staff proposes that subject to a petition, the enterprise loop analysis could be performed semi-annually. If no party petitions the Commission for a review, The Commission could defer the enterprise loop analysis until such time that a party files a petition for review.

Q39. ARE THERE ANY OTHER ISSUES WHICH STAFF WOULD LIKE TO DISCUSS?

A39. There are many other issues and sub issues contained with in TRO which while relevant, are not considered to be core issues by Staff. There is one issue however, which may become relevant during future TRO evaluation cycles. VMD submitted a number of dedicated transport routes with one end located in Maryland which cross jurisdictional boundaries into Washington DC or Virginia. The issue exists because special LATA rules apply to specific metropolitan areas on of which is Washington DC.

Staff's technical analysis found evidence of impairment on these routes during this proceeding, so Staff recommends they should retain the impaired status presumed by the FCC. If non-impairment of any of these routes is established in future TRO evaluations, the Commission will have to determine the proper manner to address inter jurisdictional routes, and or petition the FCC for clarification on how to approach the matter.

SUMMARY

Q40. DOES YOUR TESTIMONY TAKE INTO ACCOUNT THE EFFECT OF THE MARCH 2, 2004 RULING OF THE UNITED STATES COURT OF APPEALS FOR THE DISTRICT OF COLUMBIA?

A40. No, all of Staff's testimony presents Staff's conclusions regarding its analysis of the FCC TRO up to the filing date of March 5, 2004 but did not

make any changes or adjustments as a result of the March2, 2004 ruling of the Court of Appeals.

Q41. PLEASE SUMMARIZE YOUR TESTIMONY.

A41. Staff has determined that facilities based competition in Maryland exists primarily in the enterprise market and that mass market competition is predominately served by CLECs through resale and UNE-P.

The geographic markets in Maryland consist of the Washington and Baltimore metropolitan areas and the remainder of the state is not contested at this time. Staff concluded that the self provisioning triggers are not satisfied for mass market switching, and therefore , mass market circuit switching remains impaired in Maryland.

Staff defined the TRO markets in Maryland as the aggregation of specific wire centers in the Washington and Baltimore areas. The remainder of the state was not subjected to the mass market switching impairment test.

With regard to dedicated transport, Staff's evaluation found continued evidence of non-impairment for the self provisioning trigger for DS-3 or dark fiber facilities; Likewise, Staff found continued impairment for DS-1 and DS-3 or dark fiber as a result of the wholesale trigger analysis.

Staff has not completed its analysis of the enterprise loops case, and has not yet reached any conclusions regarding the outcome of the enterprise loops analysis. Staff will discuss its analysis and conclusion regarding enterprise loops on the date specified in the procedural schedule.

Doug Dawson of CCG Consulting has performed a thorough analysis of the economic factors that would distinguish a mass market customer from an enterprise customer. The results indicate that Maryland customers with 6 lines and below with no data requirements belong to the mass market, and that Maryland customers with 7 lines and above belong to the enterprise market. The other factor that must be considered however, is the magnitude of the data requirements a customer may have, which could alter the line of demarcation on a customer by customer basis.

Q42. DOES THIS CONCLUDE YOUR TESTIMONY?

A42. Yes.

ATTACHMENT JTH-A

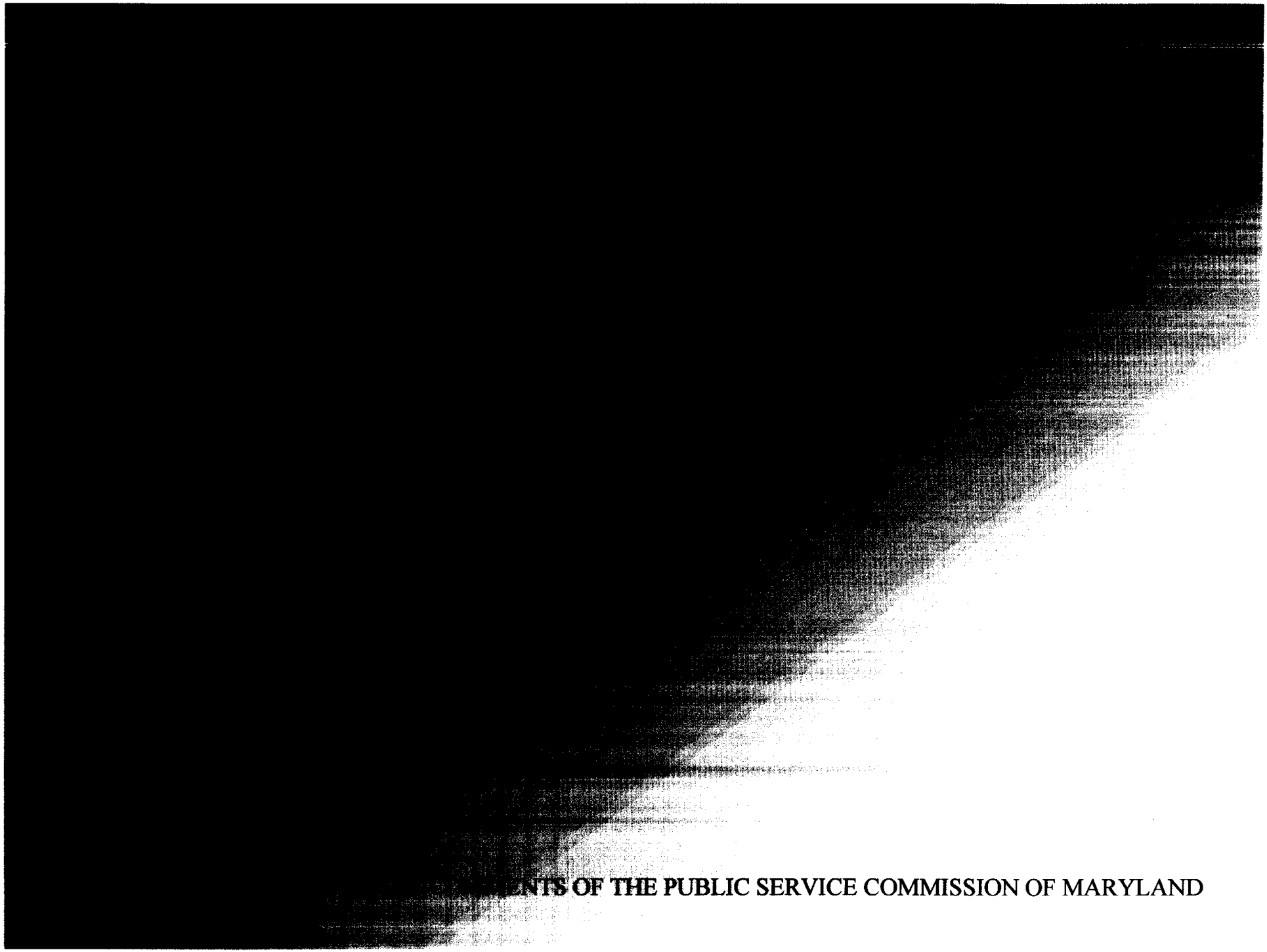
BACKGROUND AND EXPERIENCE

I have 32 years of experience in the telecommunications industry. My formal training consists of a Bachelor of Science degree in Electrical Engineering from Johns Hopkins University. In 1969 I started my career as a Switching Systems Engineer with Western Electric. That career was interrupted by two years of military service, during which I served as a central office repairman and outside plant technician. Upon my return to Western Electric, I continued my engineering career learning the details of hardware and software engineering of electronic switching systems. In 1984 I changed direction to perform network design and technical support for the regional sales operations of AT&T. I subsequently joined the Sales Operations team as an Account Executive in 1986. Prior to joining the Commission Staff in 2001, I managed several corporate telecommunications and re-engineering projects for Lucent Technologies.

ATTACHMENTS JTH-B to JTH-O

Attachments JTH-B to JTH-O Contain PROPRIETARY Information

No Public Version Is Available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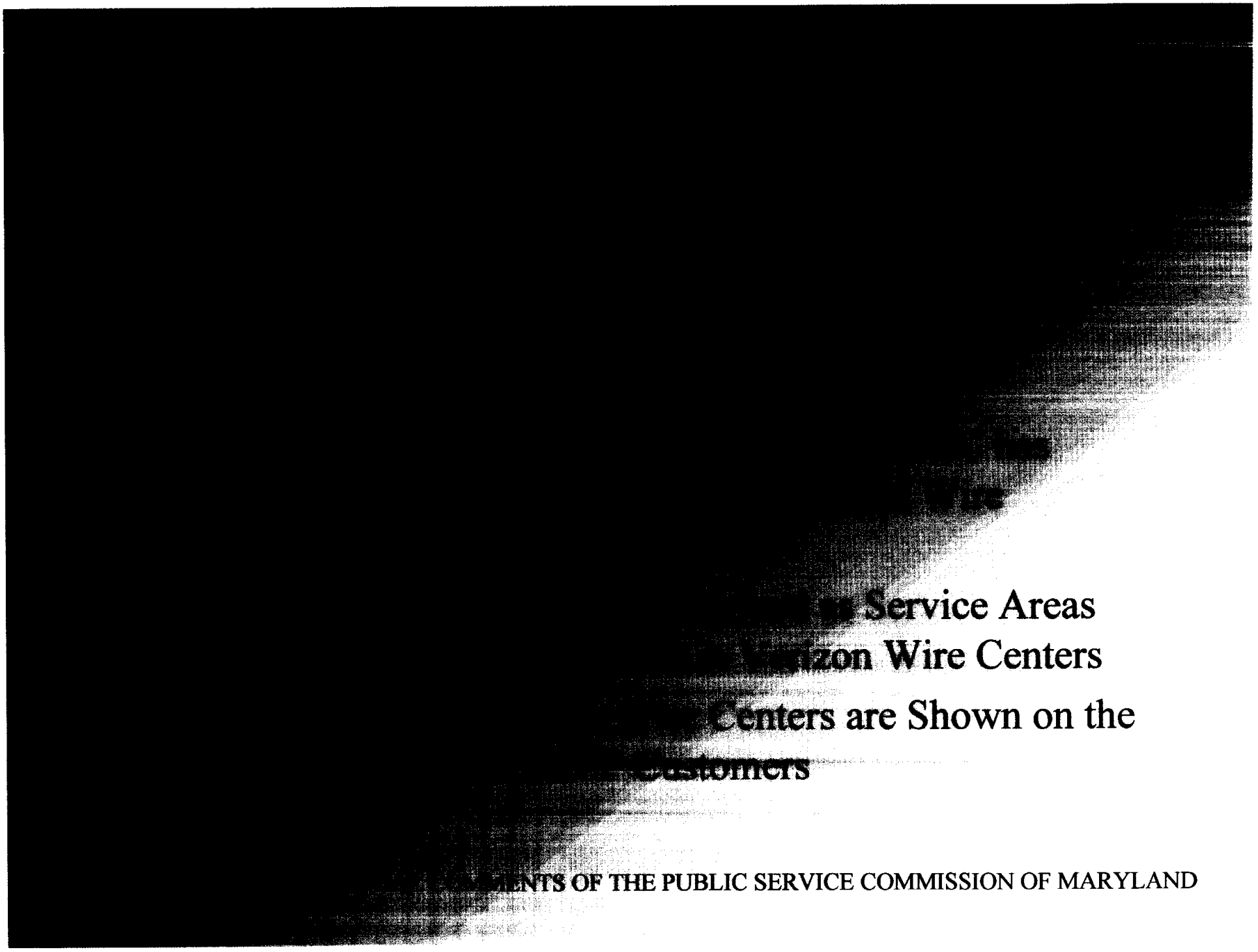
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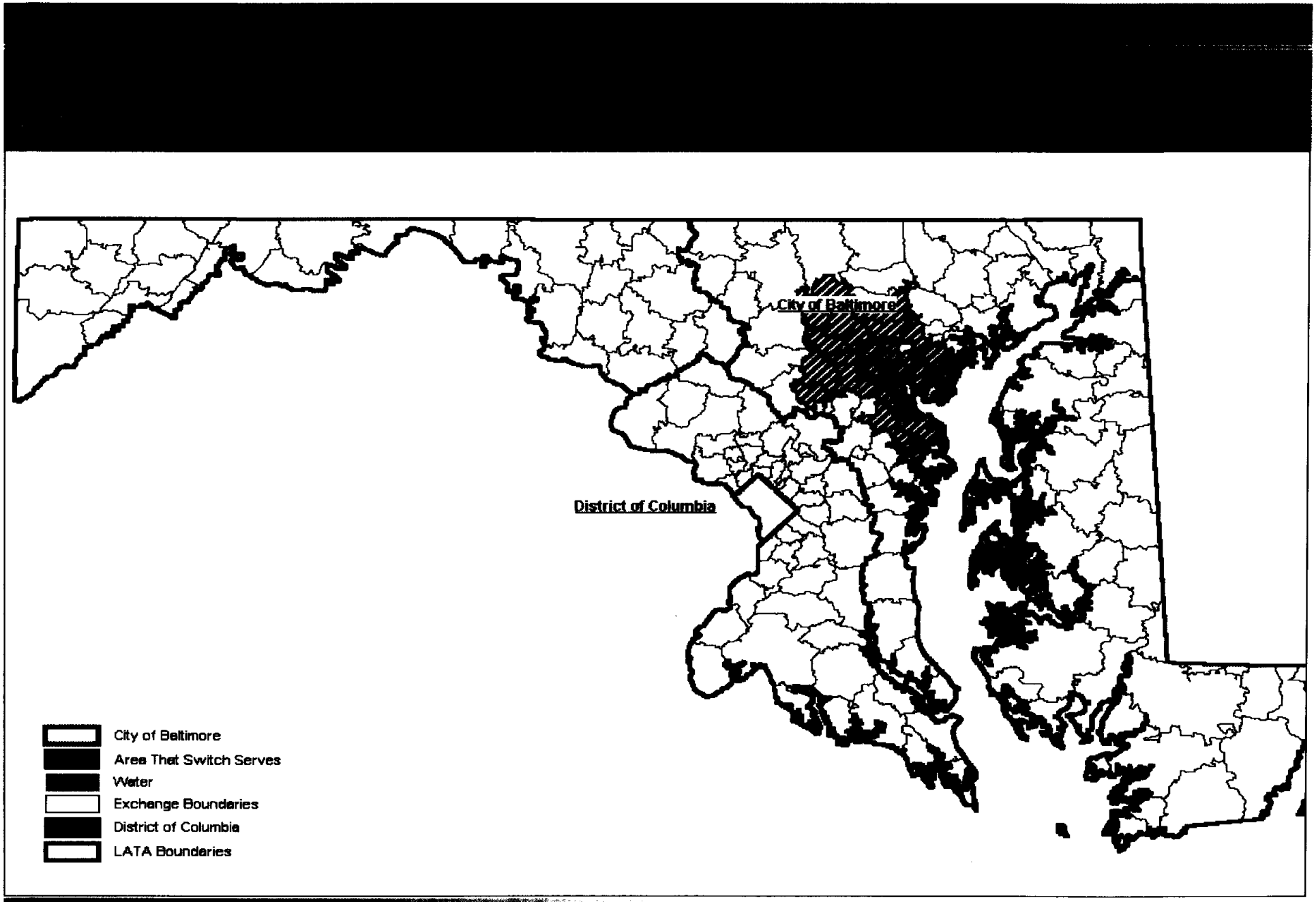
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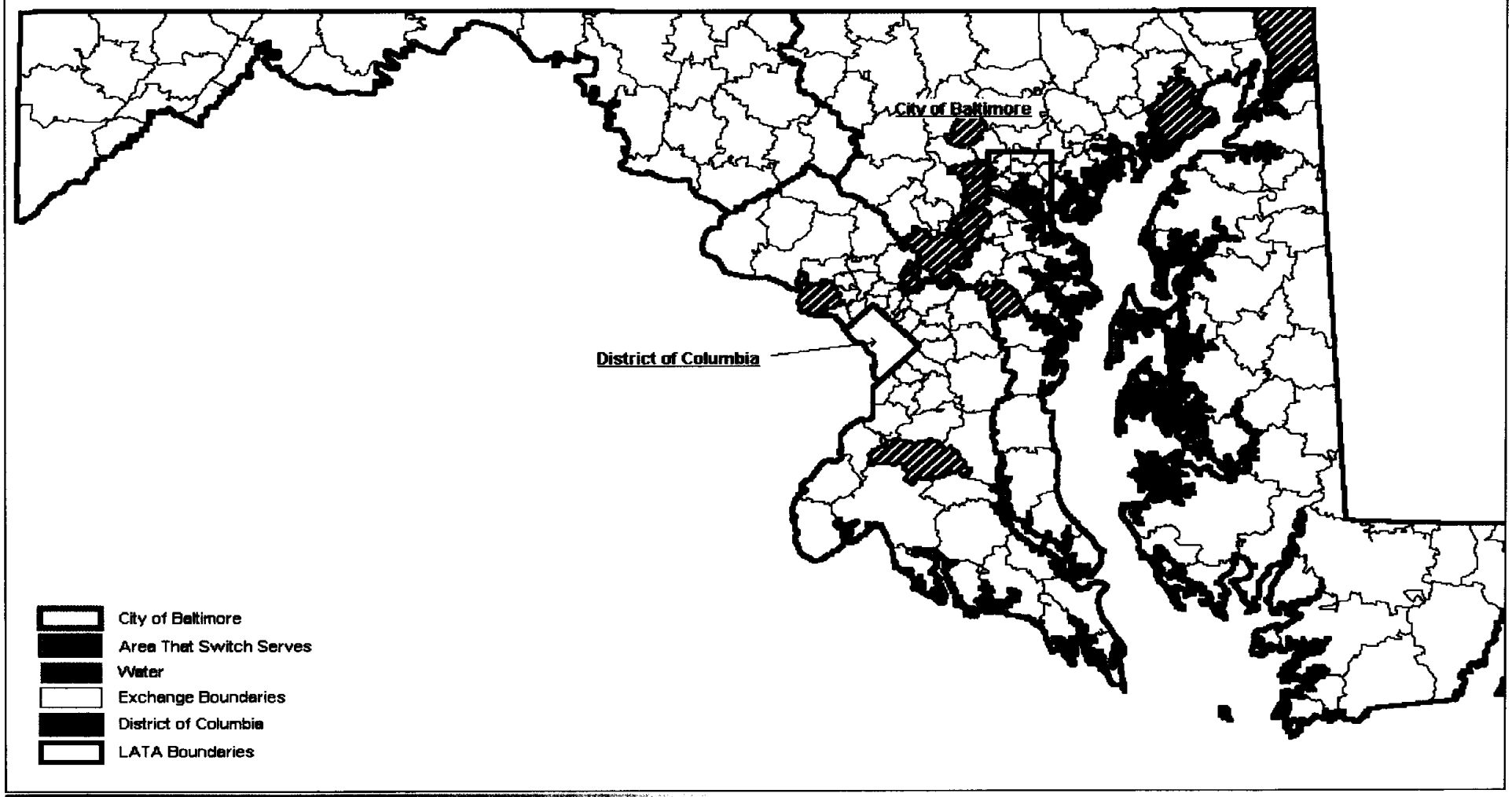
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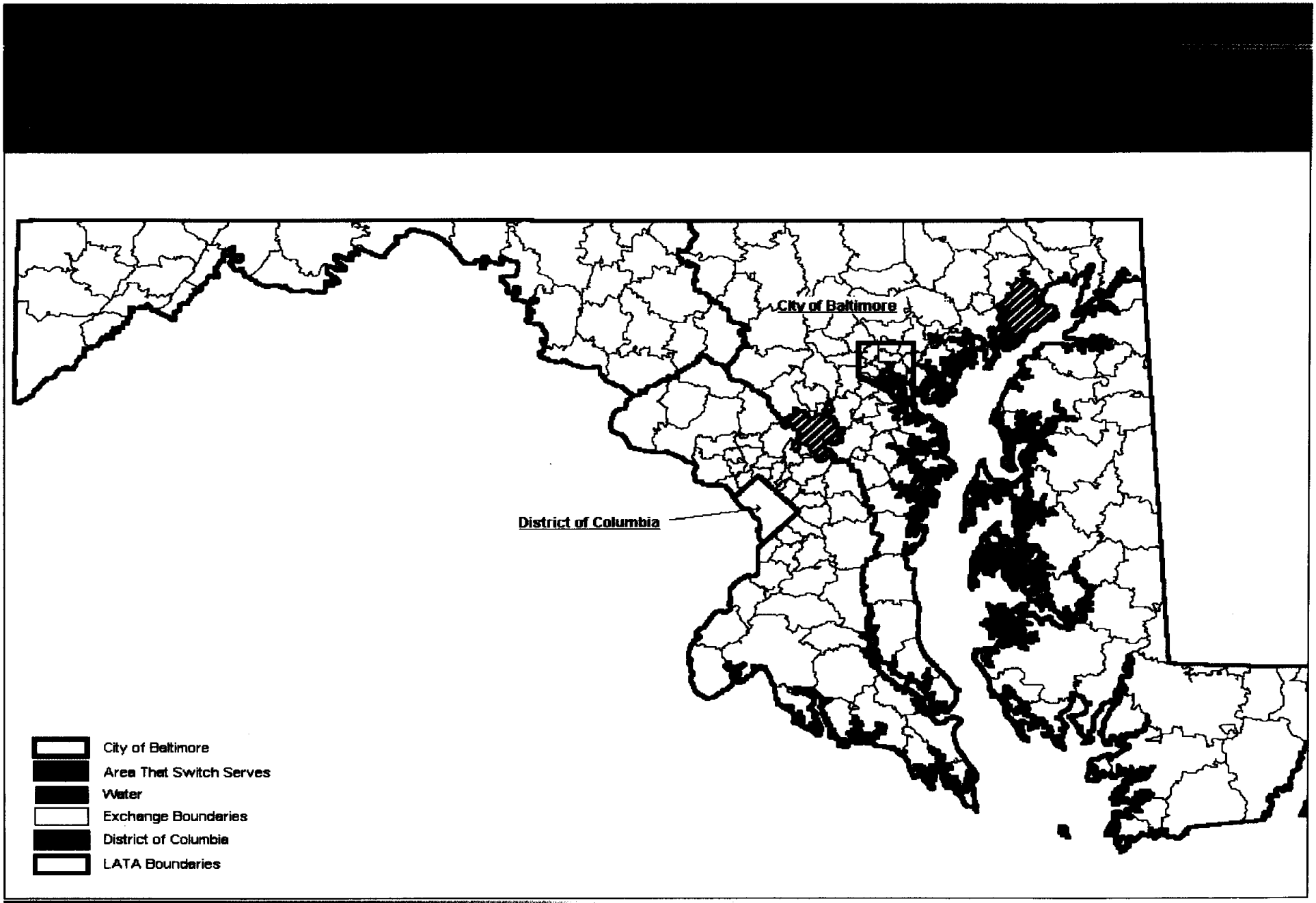
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